Component and Material Properties

Chemical	Composition, Phase Transformation, Oxidation and Corrosion
Physical	Melting Temperature, Solidification Temperature, Thermal Properties, Electrical Properties, Magnetic Properties, Density and Colour
Mechanical	Elasticity Plasticity, Stiffness, Ductile Brittleness, Strength, Hardness & Wear, Creep Durability and Fatigue Durability
Dimensional	Size Effects, Shape Effects and Surface Roughness

Alloys

Alloys are a combination of chemical elements. Usually this is to create a material more suited for a specific need,

Phase Transformation

Phase Transformation occur during heating and cooling, as well as when holding at high temperatures in time. Phase transformation has a huge impact on the material properties.

Effects of changing composition

Change Introduced	Affected Properties
Composition	Phase Transformation, Oxidation, Corrosion, Melting Temperature, Solidification Temperature, Thermal Properties, Electrical Properties, Magnetic Properties, Density, Colour, Elasticity Plasticity, Stiffness, Ductility Brittleness, Strength, Hardness & Wear, Creep Durability and Fatigue Durability.
Phase Transformation	Oxidation, Corrosion, Thermal Properties, Electrical Properties, Magnetic Properties, Density, Colour, Elasticity Plasticity, Stiffness, Ductility Brittleness, Strength, Hardness & Wear, Creep Durability and Fatigue Durability.

Sponsored by **CrosswordCheats.com**
Learn to solve cryptic crosswords!
http://crosswordcheats.com